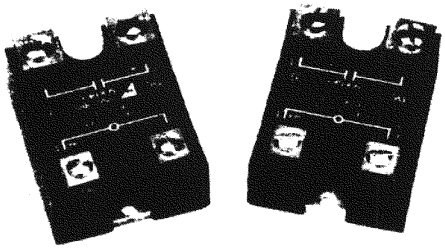
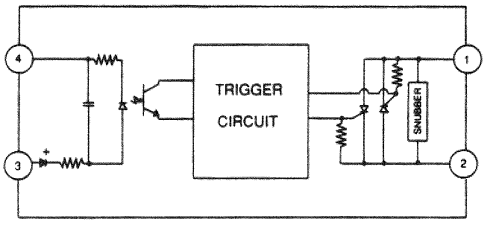
GORDOS

SOLID STATE RELAYS

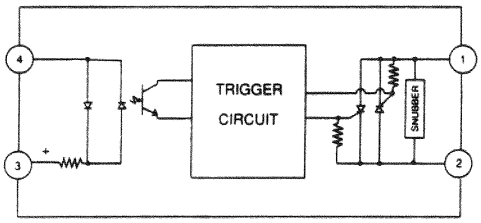
G SERIES POWER RELAYS

- Back-to-back (dual) SCR output for severe inductive loads.
- Superior False turn-on immunity and positive turn-off at high dv/dt.

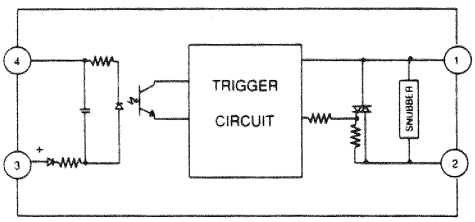




G SERIES AC INPUT
EQUIVALENT CIRCUIT



G SERIES DC INPUT
EQUIVALENT CIRCUIT



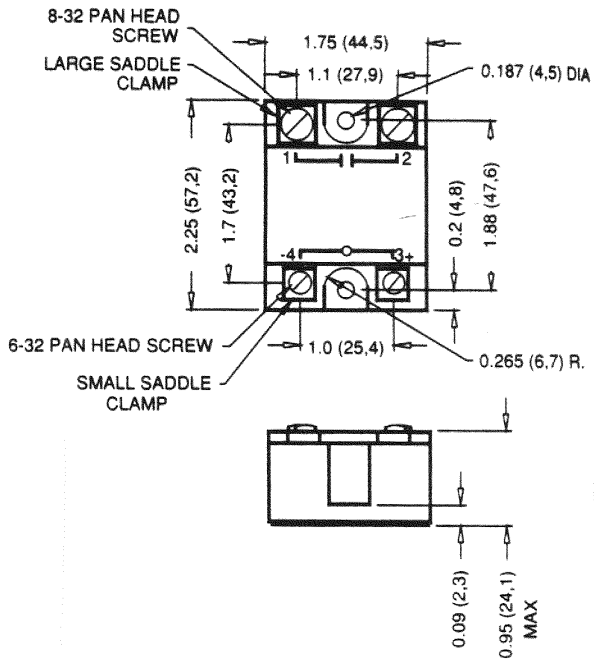
GA5 SERIES AC INPUT
EQUIVALENT CIRCUIT

GA5 SERIES POWER RELAYS

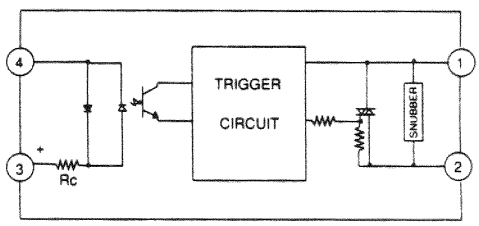
- Economical triac output for general purpose applications

FEATURES

- Current ratings to 90A
- Output voltage rating to 660 VAC with 24 VAC minimum
- AC or DC inputs
- 4KV optical isolation
- Zero AC or random turn-on models
- RC snubber network for inductive loads
- UL recognized (E46203, E79183), CSA certified (38595)
- VDE approval on many models (37421)
- UL/CSA 1/2, 3/4 and 5 H.P. rated models available



DIMENSIONS: INCHES (MILLIMETERS)
TOLERANCE: ±0.020 (±0.50)



GA5 SERIES DC INPUT
EQUIVALENT CIRCUIT

GORDOS

SOLID STATE RELAYS

G, GA5 SERIES POWER RELAYS

INPUT SPECIFICATIONS (1)

Parameter	A	D	E
Control Voltage	90-280 VAC	3-32 VDC (10)	18-36 VAC
Drop Out Voltage	10 Vrms	1.0 DC	2.0 Vrms
Maximum Input Current (2)	10 mArms	34 mADC	7 mArms
Nominal Input Resistance (3)	40K Ω	1K Ω	8K Ω
Turn-On Time (4)	20 mS	0.5 Cycle Max (4)	20 mS
Turn-Off Time	30 mS	0.5 Cycle Max	30 mS

OUTPUT SPECIFICATIONS

Parameter	G Series						GA5 Series		Units
Maximum On-State Current (5)	10	25	45	50	75	90	10	25	Arms
Minimum On-State Current	100	100	100	100	100	100	50	50	mArms
Maximum 1-Cycle Surge (6)	100	250	500	750	750	1000	100	250	Apeak
Maximum 1-Second Surge (7)	30	75	135	145	200	280	30	75	Apeak
On-State Voltage Drop (8)	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	Vpeak
I^2t (60 Hz, Half Cycle)	200	260	1040	2345	2345	4165	40	260	A^2sec
Rjb (140, 250, 280,V Models)	1.6	1.6	1.1	-	0.20	0.20	3.0	2.0	°C/W
Rjb (480, 660V Models)	1.1	1.1	-	0.30	0.20	0.20	-	-	°C/W

GENERAL SPECIFICATIONS (1)

Parameter	All Devices	Units
Operating Temperature Range	-20 to +80	°C
Storage Temperature Range	-40 to +100	°C
Input to Output Isolation Voltage (9)	4000	Vrms
Input/Output to Ground Isolation Voltage	2500	Vrms
Capacitance Input to Output (Typical)	8	pF
Line Frequency Range	47 to 80	Hz

Notes:

(1) Specifications apply to Ta -30 to +80° unless otherwise noted.
(2) At maximum input voltage.
(3) Does not include IRED impedance (drop).
(4) At 60 Hz 100μs for random turn-on (suffix "R") models.
(5) With relay properly mounted on an adequate heatsink. See thermal derating charts.
(6) At Ta of 25° C, non-repetitive.
(7) At Ta of 25° C.
(8) At Ta of 25° C and maximum on-state current.
(9) At TA of 25° C for one second, maximum leakage 1 MA.
(10) Control voltage range for G480D and G575D series is 4.0 to 32.0 VDC.